

CLAIMS

1. Lock (10) for limiting access to a confined and secured space, including:

- a bolt (12), capable of occupying first and second positions in which it is respectively possible or impossible to access said confined space,
- an electromechanical device (16), for allowing or preventing the bolt (12) from moving from one of said positions to the other,
- a control circuit (22) for addressing commands to the electromechanical device (16), and
- a communication interface (24) provided with a terminal (24b) forming an input to the lock, and arranged so as to be able to be connected, via said terminal (24b), at least indirectly, to a computer type management system (28, 30),

characterized in that said interface (24) and the control circuit (22) are arranged such that the data originating from outside the lock and addressed to the input terminal (24b) conform to a protocol including:

- a first pulse train (T1) defining the device concerned,
- a second pulse train (T2) defining the total length of the message,
- a third pulse train (T3) including data relating to the command transmitted, and
- a fourth pulse train (T4) for checking that there are no errors.

2. Lock according to claim 1, characterized in that said control circuit (22) includes:

- a memory (22a) in which there is stored at least one item of data in correlation with a code capable of commanding the lock (10) to open,
- means for comparing the data and the code (22b), and
- a pulse generator (22c) for operating the electromechanical device (16) when there is a match between the code received and the stored data.

5 3. Lock according to claim 2, characterized in that said memory (22a) is also arranged for keeping data relating to the last operations carried out and in that said control circuit (22) is arranged to address data relating to said operations to said management system (28, 30), when it is commanded to do so.

4. Lock according to any of claims 1 to 3, characterized in that said interface (24) is arranged to be exclusively connected to said management system (28, 30).

5. Security device (26) for controlling access to a confined and secured space (32, 34), including:

- a lock (40, 42, 58) of the type controlled by an access code, arranged to limit access to said space and including a control circuit (22) and a communication interface (24),
- data input means (50) allowing an operator to enter said code,
- a coordination device (54), connected to the lock (40, 42, 58) and to the data input means (50), and provided with a connection (30) for connecting said coordination device to a computer type management system (28),

characterized in that the coordination device (54), the interface (24) and the control circuit (22) are arranged such that they communicate with each other in accordance with a protocol including:

- a first pulse train (T1) defining the lock concerned,
- a second pulse train (T2) defining the total length of the message,
- a third pulse train (T3) including data relating to the command, and
- a fourth pulse train (T4) for checking that there are no errors.

6. Security device according to claim 5, characterized in that said coordination device (54) and said lock (40, 42, 58) are arranged such that, unless prohibited by the management system (28), the opening of said lock (40, 42, 58) can be controlled by said operator by acting on the data input means (50), by entering said code.

7. Security device according to claim 6, characterized in that it includes a plurality of locks (40, 42, 58) and a bus (62) connecting said locks to said coordination device (54).

15

8. Cash dispenser (44), including:

- a cash box defining a confined space (32) intended to contain said notes, and provided with a door (36),
- a lock (40) of the type controlled by an access code, for allowing or preventing the door (36) from opening and thus limiting access to said cash box,
- a dispensing mechanism (46) for removing the notes from the cash box,
- data input means (50) allowing an operator to address commands,

- a coordination device (54) connected to said data input means (50), and
- connecting means (30) for connecting said device (54) to a management system (28),

wherein said lock (40) is also connected to said device (54) from which it receives signals carrying said code, characterized in that the lock and the management system communicate with each other in accordance with a protocol, including:

- a first pulse train (T1) defining the lock concerned,
- a second pulse train (T2) defining the total length of the message,
- a third pulse train (T3) including data relating to the command, and
- a fourth pulse train (T4) for checking that there are no errors.

9. Dispenser according to claim 8, characterized in that the management system (28), the coordination device (54) and the lock (40) are arranged such that the data originating from the management system (28) prevails over the data originating from the data input means (50).

10. Management network for a set of security devices (26) for controlling access to confined and secured spaces (32, 34), including a computer (28) and connecting means (30) for connecting the computer (28) to each of said devices, wherein each device includes:

- a lock (40, 42, 58) for limiting access to the confined space, the lock including:
 - an electromechanical device (16) arranged for allowing or preventing access to said space,
 - a control circuit (22) including a memory (22a) in which there is stored at least one data item in correlation with a code capable of commanding the lock to open, means for comparing the data and the code (22b), and a pulse generator (22c) for operating the electromechanical device (16) when there is a match between the code received and the stored data,
- data input means (50) arranged to allow an operator enter the access code, and
- a coordination device (54) connected to the lock (40, 42, 58) and to the data input means (50),

wherein the control circuit (22) and said device (54) are arranged such that said space (32, 34) is only accessible if the code matches said data and said computer (28) does not prevent access, characterized in that said computer and the lock (40, 42, 58) communicate with each other in accordance with a protocol including:

- a first pulse train (T1) defining the lock concerned,
- a second pulse train (T2) defining the total length of the message,
- a third pulse train (T3) including data relating to the command, and
- a fourth pulse train (T4) for checking that there are no errors.

11. Network according to claim 10, characterized in that said control circuit (22) is arranged such that it only addresses the control pulses if said code matches the stored data and if the computer (28) gives its agreement.